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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,950	06/27/2001	Shunpei Yamazaki	07977/280001/US5027	6263

26171 7590 04/21/2004

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EXAMINER

EVERHART, CARIDAD

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/894,950

Applicant(s)

YAMAZAKI ET AL.

Examiner

Caridad M. Everhart

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,11,12, 43,44,46-48,50,51 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirabayashi (US 6,331,473B1).

Hirabayashi discloses a method which includes the steps of forming on an insulating substrate of quartz(col. 4, lines 10-11) a light shielding layer (col. 4, lines 3-6), forming an insulating layer on the light shielding film(col. 4, lines 5-8), polishing the insulating layer by CMP(col. 4, lines 55-60), and forming a semiconductor layer in contact with the planarization insulating layer(col. 4, lines 60-65) wherein the shielding layer overlaps with the semiconductor layer(Fig. 13 shows layer 4 overlapping layer 2a,2b,2c, which are described in col.8, lines 4-12 and 22-25). The thicknesses of the layers are within the recited ranges (col. 4, lines 13-17 and 55-59).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-10,13-20,45, 49 and 52-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi as applied to claims 1 and 43 and further in view of Sakuramoto et al ("Sakuramoto")(US 6,567,136B1).

Hirabayashi is silent with respect to the shielding layer being tapered around the edge and with respect to the recited devices and with respect to the lower capacitance wiring. With respect to the shielding layer being tapered around the edge, Sakuramoto discloses a shielding layer being tapered around the edge(col. 2, lines 63-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have tapered the shielding layer taught by Hirabayashi around the edge in order to obtain the benefits taught by Sakuramoto over the prior art (col. 2, lines 40-50). With respect to the named devices of the dependent claims, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used the device taught by Hirabayashi in the recited devices because Hirabayashi teaches TFT and display devices (Fig. 13 and col. 8, lines 15-21), and it is well known in the art that the

recited devices comprise the devices taught by Hirabayashi, so that it would have been obvious to one of ordinary skill in the art to have used the device taught by Hirabayashi in the recited devices.

With respect to the lower capacitance wiring, the shielding layer taught by Hirabayashi is made of a conductive material such as molybdenum(col.. 4, lines 14-16), so that this can correspond to the lower capacitance wiring and the upper wiring is taught by Hirabayashi(Fig. 13, features 8 and 9). It would have been obvious to one of ordinary skill in the art that the patterned molybdenum shielding layer can correspond to a lower capacitance wiring layer in the disclosure made by Hirabayashi because of the arrangement of the layer with the insulation layer between the layer and the upper wiring layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 571-272-1892. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Everhart  
4-17-2004

*C. Everhart*  
C. EVERHART  
PATENT EXAMINER